



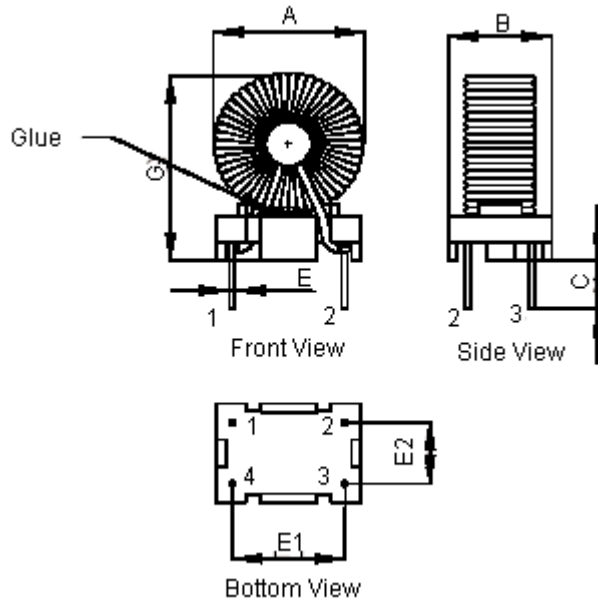
PART NO.

MCAPB105024080A-221MU

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Veena	07/2/11	Jagan	07/2/11	Farnell	21/2/11

Configurations and Dimensions



A	15.8 mm	(Maximum)
B	11.0 mm	(Maximum)
C	3.0 ±0.5mm	-
E1	7.7 ±0.5mm	-
E2	5.0 ±0.5mm	-
F	∅0.6 ±0.1mm	-
G	23.0 mm	(Maximum)



Electrical Characteristics

Test Condition		
10KHz/0.25V	L (2-4)	220.0μH ±20%
T _a = 25°C	DCR (2-4)	160.0mΩ (Maximum)
10KHz/0.25V I _{rms} = 0.5A	ΔT	Temperature Rise 40°C (Maximum)

Operating temperature : -55°C to +130°C

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DRAWING TITLE:

Inductor Toroidal

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10002591	APB105024080A-221MU	A
SCALE: NTS	U.O.M.: mm	SHEET: 1 OF 5	



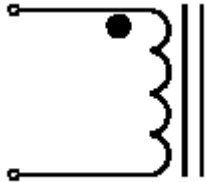
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Schematic Diagram



Note:

- (1) Wire UEFN/U (155°C) Ø0.50mm.
- (2) 80TS (Reference) C.W

Test Data for Mechanical

Test Item	A mm	B mm	C mm	E1 mm	E2 mm	F	G
Specification	15.8 (Maximum)	11.0 (Maximum)	3.0 ±0.5	7.7 ±0.5	5.0 ±0.5	Ø0.6 ±0.1	23.0 (Maximum)
1	15.26	10.79	3.29	7.64	5.12	0.58	20.07
2	14.91	10.66	3.18	7.68	5.08		19.86
3	15.39	10.68	3.21	7.59	5.07	0.60	19.67
4	15.16	10.72	2.98	7.72	5.12	0.57	19.80
5	15.40	10.63	2.95	7.76	5.09	0.59	19.89
Average	15.22	10.70	3.12	7.68	5.10	0.58	19.86

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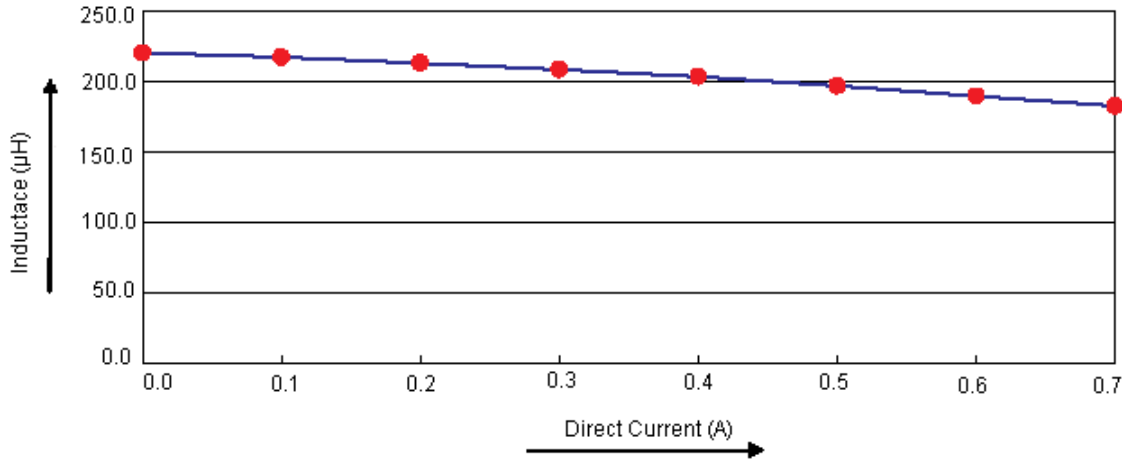
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Test Data for Electrical

Test Item	L (2-4) μ H	DCR (2-4) $m\Omega$	ΔT
Condition	10KHz/0.2 5V	$T_a = 25^\circ C$	10KHz/0.25V $I_{rms} = 0.5A$
Specification	68.0 $\pm 20\%$	90.0 (Maximum)	Temperature Rise $40^\circ C$ (Maximum)
1	221.71	133.70	OK
2	223.20	136.40	
3	221.70	133.90	
4	227.20	134.70	
5	220.71	135.60	
Average	222.90	134.86	OK

Electric Characteristics



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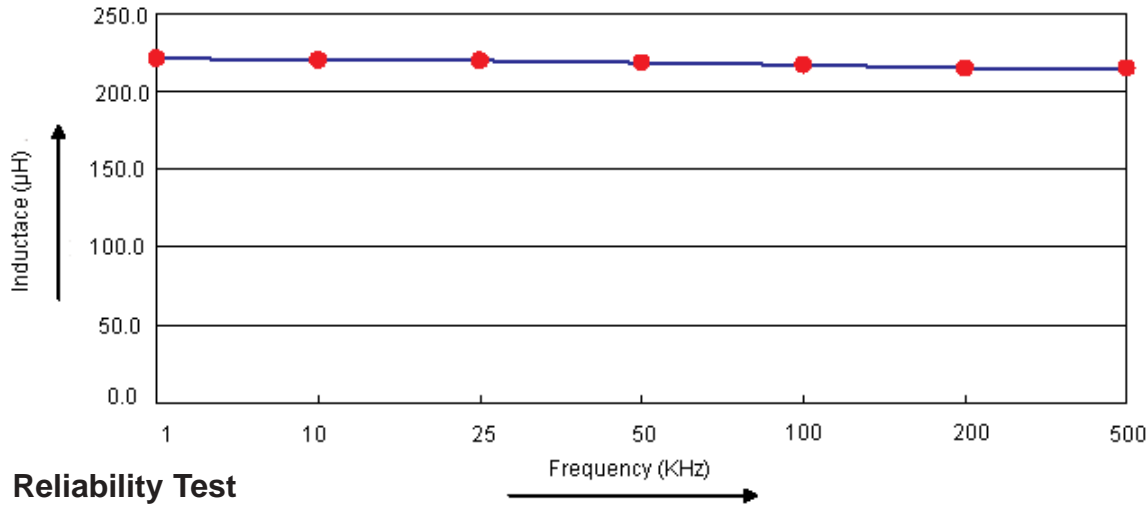
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Electric Characteristics



Reliability Test

Test Item	Specifications	Test Method and Remarks
Operating temperature range	-55°C to +130°C	Including temperature rise due to self-generated heat
Storage Condition	Ambient temperature : 0°C to 40°C Humidity : Below 70%RH	To maintain the solderability of terminal electrodes, care must be taken to control temperature and humidity in the storage area.
Moisture sensitivity	Appearance : No abnormality No damage DCR change : Within ±5% Inductance change : Within ±5%	According to J-STD-020B level 3 Test condition :60°C 60% RH Test duration :40 hours Recovery :1 to 2 hours of recovery under the standard condition after the removal from the test chamber.
Solderability	All termination shall exhibit a continuous solder coating free from defects for a minimum of 95% of the surface area of any individual lead.	According to J-STD-002B Steam aging category : 97°C 98% RH Steam aging duration : 8 hours Solder : Lead-free solder Solder temperature : 260°C ±5°C Dip time : 5 +0/-0.5 seconds.

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SCALE: NTS	U.O.M.: mm	SHEET: 4 OF 5	



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Material List

No.	Item	Material Description
1	Core	T50-75-TAF200 (Red/White)
2	Wire	Ø5.0mm UEFN/U (155°C)
3	Solder (Lead Free)	Sn99.3%/Cu0.7%
4	Base	BS1013
5	Glue	TH100A/TH100B

Part Number Table

Description	Part Number
Inductor, Toroidal, 220UH, 20%	MCAPB105024080A-221MU

<http://www.farnell.com>

<http://www.newark.com>

<http://www.cpc.co.uk>

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Inductor Toroidal			
SIZE A	DWG NO. M10002591	ELECTRONIC FILE APB105024080A-221MU	REV A
SCALE: NTS	U.O.M.: mm	SHEET: 5 OF 5	